

EXHIBIT 3

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PRELIMINARY AMENDMENT
Patent Application
Docket No. BTC.103PTXD1

June 18, 2016
David Saliwanchik
David R. Saliwanchik, Patent Attorney

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner : Not yet assigned
Art Unit : Not yet assigned
Applicant : Yi Jin
Serial No. : 15/093,151
Date Filed : April 7, 2016
Conf. No. : 6885
For : rTMS at Harmonics of Biological Signals

Mail Stop Amendments
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT

Sir:

Please amend the subject application as follows:

Amendments to the Claims are reflected in the listing of claims beginning on page 2 of this paper.

Remarks/Arguments follow the amendment sections of this paper.

In the Claims

This listing of claims will replace all prior versions and listings of claims in this application.

1 (currently amended). A method of improving a physiological condition or a neuropsychiatric condition ~~modulating a brain activity of a mammal which comprises subjecting the mammal to repetitive transcranial magnetic stimulation (rTMS) at a frequency of a non-EEG biological metric, or an harmonic or sub-harmonic of said non-EEG biological metric, for a time sufficient to modulate said brain activity wherein an improvement in a physiological condition or a neuropsychiatric condition is achieved.~~

2 (currently amended). The method of claim 1 wherein the biological metric is heart rate, respiratory rate, or gastrointestinal movement rate, ~~or an EEG frequency.~~

3 (currently amended). The method of claim 1 wherein ~~the brain activity is a desired EEG band and the rTMS frequency is equal to, or an harmonic or sub-harmonic of, a non-EEG biological metric that is closest to the targeted~~ an intrinsic frequency in the a desired EEG band.

4 (currently amended). The method of claim 3 wherein ~~the non-EEG biological metric is heart rate, respiratory rate or gastrointestinal movement rate (peristalsis).~~

5 (currently amended). The method of claim 1 wherein the physiological ~~alea~~ condition is concentration, sleep, alertness, memory, blood pressure, stress, libido, speech, motor function, physical performance, cognitive function, intelligence, height or weight.

6 (currently amended). The method of claim 1 wherein the ~~mental~~ neuropsychiatric condition is Autism Spectrum Disorder (ASD), Alzheimer's disease, ADHD, schizophrenia, anxiety, depression, coma, Parkinson's disease, substance abuse, bipolar disorder, a sleep disorder, an eating disorder, tinnitus, traumatic brain injury, post-traumatic stress syndrome, chronic pain, or fibromyalgia.

7 (currently amended). The method of claim 2 wherein the intrinsic frequency is in the delta band (<4 Hz), the theta band (4-8 Hz), the alpha band (8-13Hz), the beta band (13-30 Hz), the gamma band (~~~40~~25-100 Hz), or the Mu band (8-13 Hz).

8 (currently amended). A method of improving the symptoms~~modulating a brain activity~~ of a patient ~~person~~ having autism spectrum disorder (ASD) which comprises subjecting the patient~~person~~ to repetitive transcranial magnetic stimulation (rTMS) at a frequency of a non-EEG biological metric, or an harmonic or sub-harmonic of said biological metric, ~~for a time sufficient to modulate said brain activity wherein an improvement in the symptoms of the ASD is achieved.~~

9 (currently amended). The method of claim 8 wherein the biological metric is the person~~patient's~~ resting heart rate.

10 (currently amended). A method of improving the symptoms~~modulating a brain activity~~ of a person~~patient~~ having Alzheimer's disease which comprises subjecting the patient~~person~~ to repetitive transcranial magnetic stimulation (rTMS) at a frequency of a non-EEG biological metric, or an harmonic or sub-harmonic of said biological metric, ~~for a time sufficient to modulate said brain activity wherein an improvement in the symptoms of the Alzheimer's disease is achieved.~~

11 (currently amended). The method of claim 10 wherein the biological metric is the patient~~person's~~ resting heart rate.

12 (currently amended). A method of improving the symptoms~~modulating a brain activity~~ of a person~~patient~~ having chronic pain which comprises subjecting the patient~~person~~ to repetitive transcranial magnetic stimulation (rTMS) at a frequency of a non-EEG biological metric, or an harmonic or sub-harmonic of said biological metric, ~~for a time sufficient to modulate said brain activity wherein an improvement in the symptoms of the ASD is achieved.~~

13 (currently amended). The method of claim 12 wherein the biological metric is the ~~patient~~person's resting heart rate.

Remarks

Claims 1-13 were pending in the subject application as filed. By this Amendment, the Applicant has amended claims 1-13. No new matter has been added by this amendment.

The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

Respectfully submitted,

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/093,151	04/07/2016	YI JIN	BTC.103PTXD1	6885

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EXAMINER

LACYK, JOHN P

ART UNIT	PAPER NUMBER
3735	

NOTIFICATION DATE	DELIVERY MODE
10/21/2016	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

euspto@slepatents.com

Office Action Summary**Application No.**
15/093,151**Applicant(s)**
JIN, YI**Examiner**
JOHN LACYK**Art Unit**
3735**AIA (First Inventor to File)
Status**
No**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____.; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-13 is/are pending in the application.
 5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) _____ is/are allowed.
- 7) ☒ Claim(s) 1-13 is/are rejected.
- 8) ☐ Claim(s) _____ is/are objected to.
- 9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☐ All b) ☐ Some** c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
 Paper No(s)/Mail Date _____.
- 3) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 4) ☐ Other: _____.

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The present application is being examined under the pre-AIA first to invent provisions.

The following is a quotation of 35 U.S.C. 112(b):

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4, 7-13 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

In claim 7, “the intrinsic frequency” lacks positive antecedent basis, claim 7 is dependent on claim 2 however the frequency being defined as “intrinsic” is not recited until claim 3 and is not present in claims 1 or 2.

In claims 8, 10 and 12 the biological metric is defined as a “non-EEG” biological metric, therefore line 4 of each claim should recite “said non-EEG biological metric” for proper antecedent basis and to keep the claim language consistent throughout the claims (see claim 1). Similarly with claims 2, 4, 9, 11 and 13.

A rejection based on double patenting of the “same invention” type finds its support in the language of 35 U.S.C. 101 which states that “whoever invents or discovers any new and useful process... may obtain a patent therefor...” (Emphasis

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added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the claims that are directed to the same invention so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-13 is/are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-11 of prior U.S. Patent No. 9,308,385. This is a statutory double patenting rejection.

With regard to claims 1-7 and 10-13, the claims are directed to the same methods only taking language from the "wherein" part of the claim and moving it to the preamble of the claims.

With regard to claims 8-9, the claims are directed to the same method steps as claim 1 and further include treating the same condition (autism spectrum disorder) as recited in claim 6.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN LACYK whose telephone number is (571)272-4728. The examiner can normally be reached on 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chuck Marmor, II can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J.P. Lacyk

/JOHN LACYK/
Primary Examiner, Art Unit 3735